

Clean Copy of Claims:

27. A seal for use in a solid oxide fuel cell comprising a matrix of ceramic fibres and a plurality of solid particles interspersed between the ceramic fibres, wherein the fibres and solid particles are unsintered and wherein the fibres and particles combine to form a flexible and compressible seal which is substantially but not hermetically gas-tight.
28. The seal of claim 27 wherein the fibres are randomly oriented.
29. The seal of claim 27 wherein the seal is compressed prior to installation into a fuel cell stack.
30. The seal of claim 27 wherein the solid particles comprise ceramic particles.
31. The seal of claim 30 wherein some or all of the ceramic fibres comprise alumina, zirconia, titania, magnesia or silica.
32. The seal of claim 31 wherein some or all of the ceramic particles comprise alumina, zirconia, titania, magnesia or silica.
33. The seal of claim 27 wherein a substantial portion of the solid particles have a particle size less than about 1 micron.
34. The seal of claim 33 wherein the solid particles comprises a first portion and a second portion wherein the average particle size of the first portion is larger than the average particle size of the second portion.
35. The seal of claim 34 wherein the first portion has an average particle size of about 0.50 micron and the second portion has an average particle size of about 0.17 micron or less.
36. The seal of claim 32 wherein the fibres comprise alumina and the particles comprise alumina or zirconia.